

from 4 to 12, and a grafting agent possessing allyl groups, the said covering containing a molar amount of grafting agent ranging from 0.05 % to 2.5 %, said grafting agent having only allyl functional groups, all having the same reactivity and,

b) 30 % to 10 % by weight of a shell grafted onto the said core composed of

I¹ correct
a polymer of an alkyl methacrylate, the alkyl group of which has a carbon number ranging from 1 to 4, or alternatively of a statistical copolymer of an alkyl methacrylate, the alkyl group of which has a carbon number ranging from 1 to 4, and of an alkyl acrylate, the alkyl group of which has a carbon number ranging from 1 to 8, containing a molar amount of alkyl acrylate ranging from 5 % to 40 %, or alternatively composed of

a styrene-acrylonitrile copolymer.

28. (Five times Amended) A thermoplastic polymer composition containing a core/shell impact additive, said impact additive comprising ~~from~~:

a) 70 % to 90 % by weight of a crosslinked elastomeric core which is composed; :

I²
1) of 20 % to less than 100 % by weight of a nucleus composed of a copolymer (I) of an n-alkyl acrylate, the alkyl group of which has a carbon number ranging from 5 to 12, and of a polyfunctional crosslinking agent possessing unsaturated groups in its molecule, at least one of which is of a vinyl group, and optionally of a polyfunctional grafting agent possessing unsaturated groups in its molecule, at least one of which is an allyl group, and

2) of an amount above 0%, but not more than 80 % by weight, of a covering composed of a copolymer (II) of n-alkyl acrylate, the alkyl group of which has a carbon number ranging from 4 to 12, and a grafting agent possessing allyl groups, the said covering containing a molar amount of grafting agent ranging from 0.05 % to 2.5 %, said grafting agent having only allyl functional groups, all having the same reactivity, and

b) 30 % to 10 % by weight of a shell grafted onto the said core composed of

a polymer of an alkyl methacrylate, the alkyl group of which has a carbon number ranging from 1 to 4, or alternatively of a statistical copolymer of an alkyl methacrylate, the alkyl group of which has a carbon number

ranging from 1 to 4, and of an alkyl acrylate, the alkyl group of which has a carbon number ranging from 1 to 8, containing a molar amount of alkyl acrylate ranging from 5 % to 40 %, or alternatively

I²
could be composed of

a styrene-acrylonitrile copolymer.

69. (Twice Amended) A thermoplastic polymer composition containing a core-shell impact additive, such impact additive comprising:

(a) 70% to 90% by weight of a crosslinked elastomeric core composed of a polyorganosiloxane

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a polyfunctional crosslinking agent possessing unsaturated groups in its molecules, at least one of which is a vinyl group, and

diallyl maleate as a grafting agent, and

(b) 30 % to 10 % by weight of a shell grafted onto the said core wherein said shell is composed of

a polymer of an alkyl methacrylate, the alkyl group of which has a carbon number ranging from 1 to 4, or alternatively of a statistical copolymer of an alkyl methacrylate, the alkyl group of which has a carbon number ranging from 1 to 4, and of an alkyl acrylate, the alkyl group of which has a carbon number ranging from 1 to 8, containing a molar amount of alkyl acrylate ranging from 5 % to 40 %, or alternatively composed of a styrene-acrylonitrile copolymer.

Please add new claims 71 and 72 as follows:

71. (New) A thermoplastic polymer composition containing a core/shell impact additive said impact additive comprising:

a) 70 % to 90 % by weight of a crosslinked elastomeric core composed of

1) of 20 % to less than 100 % by weight of a nucleus composed of a copolymer (I) of

-an n-alkyl acrylate, the alkyl group of which has a carbon number ranging from 5 to 12,

-a polyfunctional crosslinking agent possessing unsaturated groups in its molecule, at least one of which is of a vinyl group, and

-diallyl maleate as a grafting agent, and

2) of an amount above 0%, but not more than 80 % by weight, of a covering composed of a copolymer (II) of

- the n-alkyl acrylate of copolymer (I)
- the polyfunctional crosslinking agent of copolymer (I) and
- diallyl maleate as a grafting agent in a molar amount ranging from 0.05 % to 2.5 %, of copolymer (II)

wherein said core is produced by simultaneously introducing the polyfunctional crosslinking agent and the diallyl maleate into the reaction mixture and the production of the covering is carried out at a temperature greater than that used for the preparation of the nucleus, and

b) 30 % to 10 % by weight of a shell grafted onto the said core composed of a polymer of an alkyl methacrylate, the alkyl group of which has a carbon number ranging from 1 to 4, or alternatively of a statistical copolymer of an alkyl methacrylate, the alkyl group of which has a carbon number ranging from 1 to 4, and of an alkyl acrylate, the alkyl group of which has a carbon number ranging from 1 to 8, containing a molar amount of alkyl acrylate ranging from 5 % to 40 %, or alternatively composed of a styrene-acrylonitrile copolymer.

72. (New) A thermoplastic polymer composition containing a core-shell impact additive, such impact additive comprising:

(a) 70% to 90% by weight of a crosslinked elastomeric core composed of

1) of 20 % to less than 100 % by weight of a nucleus composed of a polyorganosiloxane, a polyfunctional crosslinking agent possessing unsaturated groups in its molecule, at least one of which is a vinyl group and optionally of a polyfunctional grafting agent possessing unsaturated groups in its molecule, at least one of which is an allyl group, and

2) of more than 0 and not more than 80 % by weight, of a covering composed of a copolymer (II) of n-alkyl acrylate, the alkyl group of which has a carbon number ranging from 4 to 12, and a grafting agent possessing allyl groups, the said covering containing a molar amount of grafting agent ranging from 0.05 % to 2.5 %, said grafting agent having only allyl functional groups, all having the same reactivity and,

(b) 30 % to 10 % by weight of a shell grafted onto the said core wherein said shell is composed of a polymer of an alkyl methacrylate, the alkyl group of which has a carbon number ranging from 1 to 4, or alternatively of a statistical copolymer of an alkyl

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methacrylate, the alkyl group of which has a carbon number ranging from 1 to 4, and of an alkyl acrylate, the alkyl group of which has a carbon number ranging from 1 to 8, containing a molar amount of alkyl acrylate ranging from 5 % to 40 %, or alternatively composed of a styrene-acrylonitrile copolymer.
